

at a very short bow-shot's distance, the Charybdis of tide-line destruction by wave and sun. *Nereocystis* has solved the problem by the floating dock. Its holdfast at the smaller end of the stalk serves as the anchor, fastened far enough off shore to prevent stranding at low tide; its hollow bulb, surmounting the larger, hollow end of the stalk is the float; attached to the bulb are the leaves, constantly at the surface, supple, tough, safe in storm, current, and varying tide. However, it has minor troubles, since in creating for its own fronds an excellent environment it has created also an excellent habitat for other forms as well. It is not uncommon to see the bulbs and stalks densely covered with delicate red and green algae, and hydroids and bryozoa. Rising from unoccupied territory, and creating for its fronds one of the best habitats among marine algae, *Nereocystis Luetkeana* challenges the respect of the botanist and the lover of nature.—THEODORE C. FRYE, *State University, Seattle, Washington.*

TWO NEW SPECIES FROM NORTHWESTERN AMERICA.

MISS EDITH M. FARR of Philadelphia has recently submitted to the writer a small collection of plants for identification. The collection was made in the mountainous regions of Alberta and British Columbia, chiefly in the vicinity of Banff, Lake Louise, Field, etc., during the summers of 1904 and 1905. Among other interesting rarities there are two which the writer has been unable to place satisfactorily in any described species. These are characterized as follows:

Castilleja purpurascens Greenman, n. sp.—Perennial, more or less purplish throughout: stems erect or nearly so, 1 to 3^{dm} high, usually several from a multicapital caudex, glabrous or puberulent below, villous above: leaves sessile, subamplexicaul, linear to narrowly lanceolate, 1.5 to 4.5^{cm} long, 1 to 7^{mm} broad, usually attenuate and acute, entire and undivided or occasionally 3-cleft near the apex, glabrous or the upper somewhat villous-pubescent, 3-nerved; the lowermost leaves much reduced: inflorescence terminating the stem in a subcapitate raceme, later elongating to about 7^{cm} in length, villous-pubescent; bracts ovate-lanceolate to oblong-ovate, 2 to 2.5^{cm} long, usually entire, occasionally cleft: calyx 1.5 to 2.5^{cm} long, and as well as the bracts varying in color from a deep purplish-red to scarlet and rarely to yellow tinged with red or pink, about equally divided before and behind, externally villous with glandular hairs intermixed; the lateral divisions 2-lobed, lobes obtuse: corolla 2 to 3^{cm} long; galea about one-half as long as the corolla-tube, green or greenish-yellow on the glandular puberulent back, with scarlet or magenta colored

margins, conspicuously exerted beyond the calyx and floral bracts; lip usually dark green, 3-lobed, about one-fourth the length of the galea, commonly protruding through the anterior fissure of the calyx: mature capsule oblong, 7 to 8^{mm} long, abruptly acuminate or subapiculate, strongly compressed laterally, glabrous: seeds about 1.5^{mm} long, yellowish-brown.

BRITISH COLUMBIA: near Field, at an altitude of about 1200^m, 7 June, 1905, Miss *Edith M. Farr*, nos. 567, 568 (type), 569, 570, 571, 572, 573, 574 (form with yellowish inflorescence slightly tinged with red or pink), 575, 576. Type in hb. Field Museum and hb. Univ. of Penn.

The suite of specimens here cited shows considerable variation in color and to some extent variation in foliage, but all have the same habit and technical characters of the flower. The species apparently has its nearest affinity with *Castilleja Elmeri* Fernald, from which it differs in being glabrous or essentially so below, in having a more slender inflorescence, narrower floral bracts, and a more conspicuously exerted corolla with a somewhat longer galea. The purplish cast of the entire plant with the galea extending well beyond the crimson or purplish bracts and calyx renders this an attractive species and easily distinguished among its numerous allies.

Senecio (§AUREI) **Farriæ** Greenman, n. sp.—An herbaceous perennial 1 to 1.5^{dm} high: stem erect or ascending, branching from near the base, glabrous except for a persistent white tomentum in the leaf axils; branches few, relatively long and terminated by a single head: basal leaves ovate to slightly obovate, the blade 1 to 3^{cm} long, 1 to 1.5^{cm} broad, rounded at the apex, crenate-serrate to subentire, contracted at the base into a narrowly winged petiole equaling or exceeding the blade, glabrous or nearly so; the lower stem leaves sublyrate or more or less irregularly pinnatifid, the upper reduced to entire bracts: heads about 1^{cm} high, radiate: involucre campanulate, slightly calyculate, tomentulose at the base; bracts of the involucre usually 21, linear-lanceolate, about 8^{mm} long, nearly or quite equaling the flowers of the disk, acute, reddish tipped: ray-flowers 12 to 14; rays orange-yellow; disk-flowers numerous.

ALBERTA: near Banff, altitude 1500^m, 8 June, 1904, Miss *Edith M. Farr*. Type in hb. Univ. of Penn., fragment and photograph in hb. Field Museum.—
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